



EnerFuture Forecasts

Global Energy & Carbon Projections

Service Description

EnerFuture provides world energy forecasts up to 2030 based on the POLES model. These forecasts provide a unique insight into future energy demand and price, which can be viewed by world region or country, and by energy or sector. It aims to provide a consistent set of data reflecting those forces that will impact future business environments and company strategies.

Key features

- Forecasts of the global energy market
- Energy forecasts based on the globally recognised POLES model
- 4 detailed scenarios offered, accounting for economic growth and carbon constraints
- 2 updates each year
- Multi-energy approach
- Energy demand forecasts by sector, by energy
- CO2 emissions by sector, by energy
- End-user price forecasts by customer segment, by energy
- 65 world regions, sub-regions, and countries
- Model reference year 2008
- Annual forecasts until 2030
- Direct, personal contact with Enerdata experts for data support and assistance
- Modelling methodology made explicit
- Scenario assumptions made explicit
- Online access to the service

Key Benefits

- Recognised modelling team with more than 30 years experience in energy forecasting
- Projections created by the POLES model
- Global consistency between forecasts
- Supply-demand equilibrium by market and world region
- Follow trends of oil, gas, coal and power demand, by sector
- Assess the impact of carbon constraints on energy prices & demand

Subscription Access

12 Months subscription

A 12 month subscription allows you online access to your customised updated module

Subscription license:

- Basic license: 1 to 3 person user access
- Department license: up to 10 person user access
- Global Group license: unlimited access

Scope of license:

- Comprehensive access
- Modular access (energies, geography, topics covered)

Please contact our commercial team to subscribe

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Model Features

The POLES model is a detailed, global energy sector model producing year-by-year simulations. World economic and population projections, and possible carbon constraint levels, are the main scenario controls, with the model providing endogenous results for numerous variables.

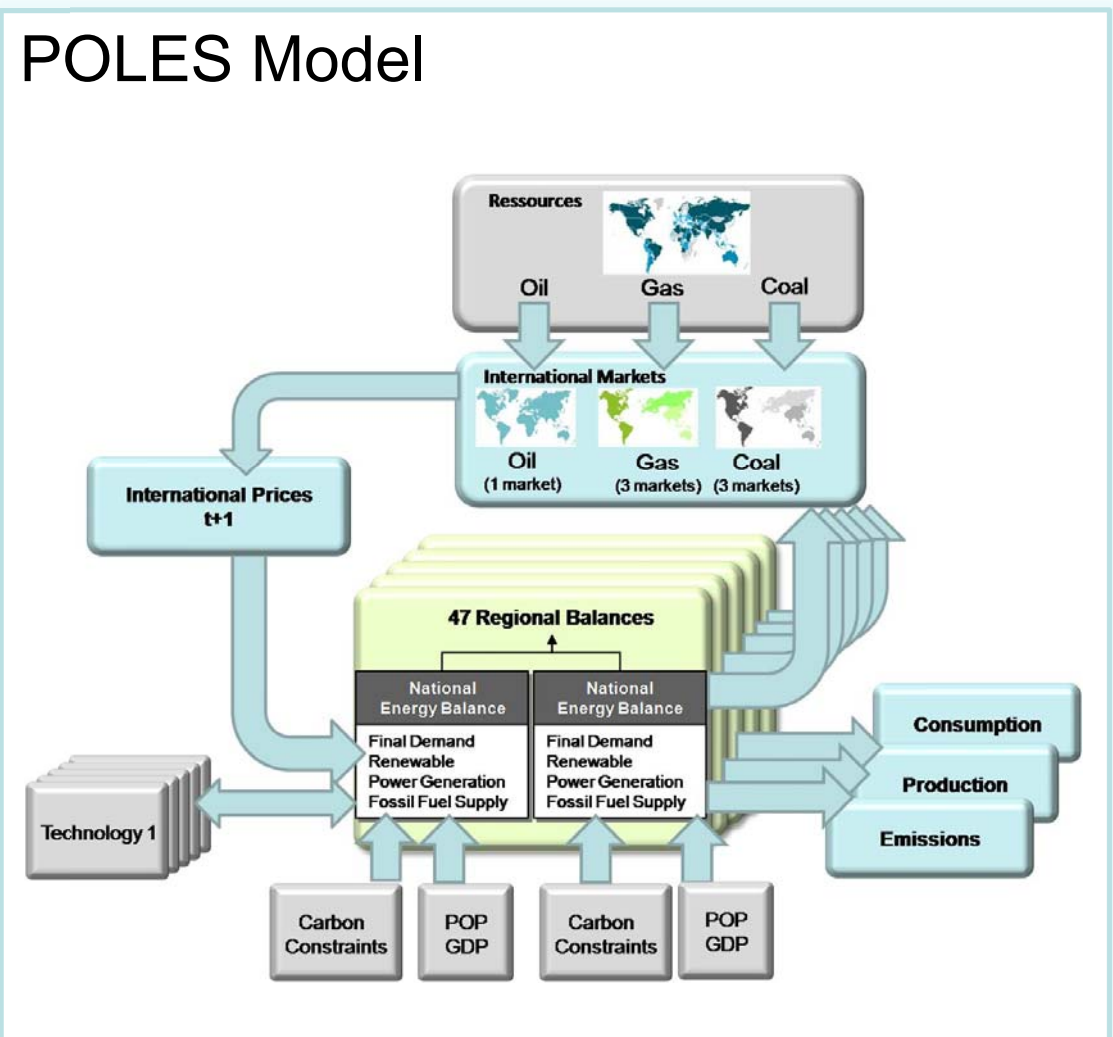
Main Features:

- World energy model
- year-by-year simulation up to 2050
- Simulation of energy balances for 65 countries & regions
- Disaggregation into 15 energy demand sectors
- 40 Energy generation technologies accounted for:
 - 30 power generation technologies (incl. renewable)
 - 10 hydrogen production technologies
- Regional Markets for Technologies - conventional, new and renewable power generation
- Simulation of oil and gas: discoveries and reserves for main producers
- International energy prices and markets are endogenous
- Energy Supply - identification of the key market suppliers for oil and gas
- International Trade - flows of energy products for oil and natural gas
- CO2 Emissions and Abatement Costs - on a region, country, and sector basis

Contributors to the POLES model

- Model jointly developed by EPE LEPii-CNRS, IPTS, Enerdata
- Databases produced and updated by Enerdata

POLES Model



Forecasting Scenarios

The POLES model has been used by Enerdata experts in various assignments for international and national organisations (ie European Commission, WEC, French Ministries), as well as major private actors in the energy sector.

Numerous simulations have been carried out to assess the impacts of economic growth, energy and climate change policy implementation, and new technology on the global energy system.

Set of scenarios

Building on these simulations, the EnerFuture service provides a range of 4 exclusive scenarios to assist analysts in assessing the key drivers that impact the energy industry in the mid-term.

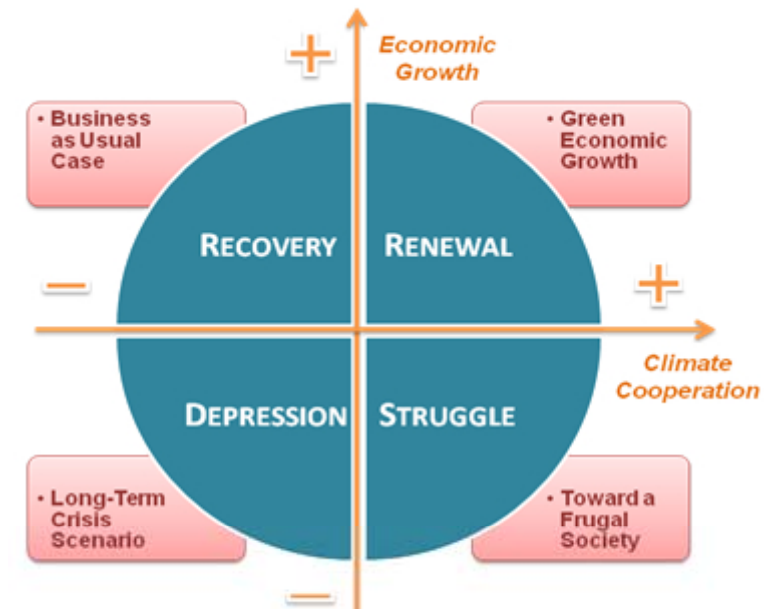
2 sets of controls are presented, accounting for different economic growth assumptions. Each scenario is declined along 2 alternative carbon emissions mitigation policies.

Scenarios update

Scenarios are updated every 6 months, to integrate the latest available data:

- The IMF's most recent GDP projection data
- Latest energy data supplied by our in-house energy market database

EnerFuture Scenarios



Recovery : economic recovery by 2011 with no consensus emerging from climate change negotiations. Business as Usual behavior returns.

Depression: long-term global energy system crisis . Economic downturn to last until 2015 while demography remains weak.

Renewal: international climate change negotiations successful and economic growth positive. Global implementation of CO2 reduction measures, aiming to return world emissions to 1990s level by 2030.

Struggle same CO2 emissions reduction targets, yet prolonged economic downturn retards energy system innovation, toward sobriety.

Demand & CO2 Forecasts

Energy demand forecasts are soaring in developing countries, while increasing regulations in developed countries result in the stabilisation or reduction of energy demand.

Key features

- Detailed projections by world region, sub-region and key country (detail in page 6)
- Global forecast consistency, through regional balances
- Simulation of energy system interactions between world regions
- Annual energy demand forecasts until 2030
- Historic years from 2000 until 2008
- Multi-energy approach: oil, gas, power, coal markets
- Forecasts detailed by sector

Energy & CO2	Forecasts	Sector
<ul style="list-style-type: none"> ▪ Oil ▪ Gas ▪ Coal ▪ Electricity ▪ Biomass ▪ CO2 emissions 	<ul style="list-style-type: none"> ▪ Total demand ▪ Demand by sector: 	<ul style="list-style-type: none"> ▪ Power sector ▪ Industry ▪ Transport ▪ Residential/ Services/ Agriculture

Optional – Power mix forecasts

A optional module on power generation is available. It includes the following categories of power generation: nuclear, hydro, thermal oil, thermal gas, thermal coal, thermal biomass, other renewable (wind, solar)

Prices Forecasts

Energy prices have become increasingly volatile, having a significant impact on end-users, while the prospect of new carbon constraints is also being felt on prices.

Key Features

- End-user price forecasts by country, including taxes
- Annual prices trends from 2000 until 2030
- 2000-2008 historical prices compiled by Enerdata data specialists
- Constant prices (real prices) in US\$05
- Energy market prices are endogenous to the model

Energy	Sector	Unit
Oil	Industry	\$05/t
Oil	Residential - Services	\$05/kl
Gasoline	Transport	\$05/l
Natural gas	Industry	\$05c/kWh
Natural gas	Residential - Services	\$05c/kWh
Natural gas	Power sector	\$05c/kWh
Electricity	Industry	\$05c/kWh
Electricity	Residential - Services	\$05c/kWh
Coal	Industry	\$05/t
Coal	Residential - Services	\$05/t
Coal	Power sector	\$05/t

Geographical Coverage

		World				
		Europe	America	Asia	Africa & Middle East	CIS
REGIONS*		Europe	North America	Asia	Africa	CIS
		EU-15	Latin America	South Asia (excl. India)	North Africa	Other CIS
		EU-25	Central America	South East Asia (excl. China & Korea)	Sub-Saharan Africa	
		EU-27	Central America (excl. Mexico)	OECD Pacific	Middle-East	
		Baltic States	South America		Gulf countries	
			South Am (excl. Brazil)		ME (excl. Gulf countries)	
COUNTRIES		Austria	Brazil	Australasia*	Algeria-Libya*	Russia
		Belgium	Canada	China	Morocco-Tunisia*	Ukraine*
	Bulgaria	Mexico	India	Egypt*		
	Croatia	United States	Japan	South Africa		
	Czech Republic		South Korea			
	Denmark		Indonesia			
	Finland					
	France					
	Germany					
	Greece					
	Hungary					
	Ireland					
	Italy					
	Netherlands					
	Norway					
	Poland					
	Portugal					
	Romania					
	Slovak Republic					
	Slovenia					
	Spain					
	Sweden					
	Switzerland					
	Turkey					
	United Kingdom					

*Note: Price Forecast unavaible